

WHAT IS CLAIMED IS:

1. A system in which a plurality of devices driven by supply of power are connected,

wherein each of at least two devices out of said  
5 devices comprises memory means for storing history information of each device under connection in the system, and control means for altering the history information in said memory means when an alteration occurs in a configuration of the system.

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2. A system according to Claim 1, wherein each of said devices can be a primary host device having a primary host function or a secondary host device having a secondary host function, wherein when said primary

15 host device is disconnected from connection in the system, said control means of the secondary host device sets the secondary host device itself as a new primary host device and designates another device as a new secondary host device, and wherein when the secondary  
20 host device is disconnected from connection in the system, said control means of the primary host device designates another device as a new secondary host device.

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3. A system in which a plurality of devices driven by supply of power are connected,

wherein each of at least two devices out of said

devices comprises memory means for storing history information of each device under connection in the system, and control means for altering the history information in said memory means when an alteration  
5 occurs in a configuration of the system and for performing such control that a total demanded power of said devices does not exceed a total supplied power.

4. A system according to Claim 3, wherein each of  
10 said devices can be a primary host device having a primary host function or a secondary host device having a secondary host function and can transfer into a power saving mode, wherein when the primary host device is disconnected from connection in the system, said  
15 control means of the secondary host device sets the secondary host device itself as a new primary host device and designates another device as a new secondary host device, and wherein when the secondary host device is disconnected from connection in the system, said  
20 control means of the primary host device designates another device as a new secondary host device.

5. A system according to Claim 1, wherein at least two devices out of said devices are a primary  
25 host device and a secondary host device.

6. A system according to Claim 1, wherein at

least one device out of said devices is a device  
capable of supplying power to the other devices and  
wherein there are said device capable of supplying  
power and the devices receiving the power from the  
5 device capable of supplying power, mixed in the system.

7. A system according to Claim 6, wherein said  
device capable of supplying power is a primary host  
device.

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8. A system according to Claim 6; wherein when an  
alteration occurs in the configuration of the system,  
said control means of said device capable of supplying  
power reports supplied power to a primary host device  
15 and said control means of said devices receiving the  
power reports consumed powers thereof in action and in  
a power saving mode to the primary host device.

9. A system according to Claim 6, wherein when an  
20 alteration occurs in the configuration of the system,  
said control means of each said device notifies the  
control means of the other devices of its ID specific  
thereto and that it is a primary host device or a  
secondary host device, said control means of said  
25 device capable of supplying power reports supplied  
power thereof, and said control means of each said  
device receiving the power reports consumed powers

thereof in action and in a power saving mode.

10. A system according to Claim 4, wherein said control means of said primary host device gives a  
5 command for entry into the power saving mode to a device of a shorter active time than others, based on the history information in said memory means.

11. A system according to Claim 4, wherein when a  
10 device is disconnected from connection in the system, said control means of said primary host device deletes history information of said device from said memory means.

12. A system according to Claim 4, wherein when a  
15 device is added to connection in the system, said control means of said primary host device stores history information of said device in said memory means.

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13. A control method applied to a system in which a plurality of devices driven by supply of power are connected,

wherein each of at least two devices out of said  
25 devices has a memory step of storing history information of each device under connection in the system, and a control step of altering said history

information when an alteration occurs in a configuration of the system.

14. A control method according to Claim 13,  
5 wherein each of said devices can be a primary host device having a primary host function or a secondary host device having a secondary host function, wherein when the primary host device is disconnected from connection in the system, said control step of the  
10 secondary host device comprises a step of setting the secondary host device itself as a new primary host device and designating another device as a new secondary host device, and wherein when the secondary host device is disconnected from connection in the  
15 system, said control step of the primary host device comprises a step of designating another device as a new secondary host device.

15. A control method applied to a system in which  
20 a plurality of devices driven by supply of power are connected,

wherein each of at least two devices out of said devices has a memory step of storing history information of each device under connection in the  
25 system, and a control step of altering said history information when an alteration occurs in a configuration of the system and performing such control

that a total demanded power of said devices does not exceed a total supplied power.

16. A control method according to Claim 15,  
5 wherein each of said devices can be a primary host device having a primary host function or a secondary host device having a secondary host function and can transfer into a power saving mode, wherein when the primary host device is disconnected from connection in  
10 the system, said control step of the secondary host device comprises a step of setting the secondary host device itself as a new primary host device and designates another device as a new secondary host device, and wherein when the secondary host device is  
15 disconnected from connection in the system, said control step of the primary host device designates another device as a new secondary host device.

17. A control method according to Claim 13,  
20 wherein at least two devices out of said devices are a primary host device and a secondary host device.

18. A control method according to Claim 13,  
wherein at least one device out of said devices is a  
25 device capable of supplying power to the other devices and wherein there are said device capable of supplying power and the devices receiving the power from the

device capable of supplying power, mixed in the system.

19. A control method according to Claim 18,  
wherein said device capable of supplying power is a  
5 primary host device.

20. A control method according to Claim 18,  
wherein an alteration occurs in the configuration of  
the system, said control step of said device capable of  
10 supplying power comprises a step of reporting supplied  
power to a primary host device and said control step of  
each said device receiving the power comprises a step  
of reporting consumed powers thereof in action and in a  
power saving mode to the primary host device.

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21. A control method according to Claim 18,  
wherein when an alteration occurs in the configuration  
of the system, said control step of each said device  
comprises a step of notifying the other devices of its  
20 ID specific thereto and that it is a primary host  
device or a secondary host device, said control step of  
said device capable of supplying power comprises a step  
of reporting supplied power thereof, and said control  
step of each said device receiving the power comprises  
25 a step of reporting consumed powers thereof in action  
and in a power saving mode.

22. A control method according to Claim 16,  
wherein said control step of said primary host device  
comprises a step of giving a command for entry into the  
power saving mode to a device of a shorter active time  
5 than others, based on the history information in said  
memory means.

23. A control method according to Claim 16,  
wherein said control step of said primary host device  
10 comprises a step of deleting history information of a  
device from said memory means when said device is  
disconnected from connection in the system.

24. A control method according to Claim 16,  
15 wherein said control step of said primary host device  
comprises a step of storing history information of a  
device in said memory means when said device is added  
to connection in the system.

20 25. A computer-readable memory medium storing a  
program for carrying out a history information  
succeeding method applied to a bus system to which a  
plurality of devices driven by supply of power can be  
connected,  
25 wherein said history information succession method  
comprises a memory step of storing the history  
information of each device under connection to the



system, and a control step of altering said history information when an alteration occurs in a configuration of the system.

- 5           26. A computer-readable memory medium storing a program for carrying out a history information succeeding method applied to a bus system to which a plurality of devices driven by supply of power can be connected,
- 10           wherein said history information succession method comprises a memory step of storing the history information of each device under connection to the system, and a control step of altering said history information when an alteration occurs in a
- 15           configuration of the system and performing such control that a total demanded power of said devices does not exceed a total supplied power.

- 20           27. A power control apparatus for a driving device to which power is supplied from a power supplying device which is subject to current limitation at a predetermined current limit value,
- said power control apparatus comprising a rechargeable battery, and a charge control part for
- 25           charging said battery while a current drain is lower than said limit current value,
- wherein when the current drain exceeds said limit

current value, a current is supplied from said battery to said driving device.

28. A power control apparatus according to Claim  
5 27, wherein said driving device is a device a current drain of which becomes transiently over said limit current value.

29. A power control apparatus according to Claim  
10 27, wherein the power from said power supplying device is supplied via a USB connector.

30. A USB apparatus comprising a driving device to which power is supplied from a power supplying  
15 device which is subject to current limitation at a predetermined current limit value, and a power control device connected to said power supplying device via a USB connector and arranged to control supply of the power to said driving device,

20 wherein said power control device comprises a rechargeable battery, and a charge control part for charging said battery while a current drain is lower than said limit current value, and wherein when the current drain exceeds said current limit value, a  
25 current is supplied from said battery to said driving device.

31. A USB apparatus according to Claim 30,  
wherein said driving device is a device a current drain  
of which becomes transiently over said limit current  
value.

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32. A USB apparatus according to Claim 31,  
wherein said driving device is comprised of a speaker  
device incorporating a power amplifier.

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33. A USB apparatus according to Claim 31,  
wherein said driving device is comprised of a floppy  
disk drive.

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34. A power control method for a driving device  
to which power is supplied from a power supplying  
device which is subject to current limitation at a  
predetermined current limit value, said power control  
method comprising steps of:

preparing a rechargeable battery;

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charging said battery while a current drain is  
lower than said current limit value; and

supplying a current from said battery to said  
driving device when the current drain exceeds said  
limit current value.

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35. A power control method according to Claim 34,  
wherein said driving device is a device a current drain

of which becomes transiently over said limit current value.

36. An information processing apparatus  
5 comprising:

means for distributing upstream bus means serially connected to an upstream device, to downstream bus means serially connected to a plurality of downstream devices,

10 wherein when energization from said upstream bus means is present, data from the upstream device is transmitted to said downstream bus means and wherein when the energization from said upstream bus means is absent, said means is connected to an image  
15 input/output device connected to said downstream bus means to effect transfer of image data thereto or therefrom.

37. An information processing apparatus according  
20 to Claim 36, wherein a control program for controlling said image input/output device is received from an external device and the transfer of the image data to or from said image input/output device is carried out according to the control program thus received.

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38. An information processing apparatus according to Claim 37, wherein when the energization from said

upstream bus means is present, said control program is received from the external device and wherein when the energization from said upstream bus means is absent, the transfer of the image data to or from said image input/output device is carried out according to the control program received from said external device.

39. An information processing apparatus according to Claim 38, further comprising a memory for storing said control program and detection means for detecting presence/absence of the control program in said memory, wherein when the control program is not stored in said memory, the transfer of the image data to or from said image input/output device is carried out according to the control program received from said external device.

40. An information processing apparatus according to Claim 36, wherein a control program for controlling said image input/output device is received from said image input/output device and the transfer of the image data to or from said image input/output device is carried out according to the control program thus received.

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41. A display control method comprising steps of: preparing means for distributing upstream bus

means under one-to-one serial connection to an upstream device, to downstream bus means under one-to-one serial connection to a plurality of downstream devices;

transmitting data from the upstream device to said  
5 downstream bus means when energization from said upstream bus means is present;

connecting said means to an image input/output device connected to said downstream bus means to effect transfer of image data thereto or therefrom when the  
10 energization from said upstream bus means is absent;  
and

displaying said image data on a display.

42. A display control method according to Claim  
15 41, wherein a control program for controlling said image input/output device is received from an external device and the transfer of the image data to or from said image input/output device is carried out according to the control program thus received.

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43. A display control method according to Claim 42, wherein when the energization from said upstream bus means is present, said control program is received from the external device and wherein when the  
25 energization from said upstream bus means is absent, the transfer of the image data to or from said image input/output device is carried out according to the

control program received from said external device.

44. A display control method according to Claim  
42, further comprising a memory for storing said  
5 control program and detection means for detecting  
presence/absence of the control program in said memory,  
wherein when the control program is not stored in  
said memory, the transfer of the image data to or from  
said image input/output device is carried out according  
10 to the control program received from said external  
device.

45. A display control method according to Claim  
41, wherein a control program for controlling said  
15 image input/output device is received from said image  
input/output device and the transfer of the image data  
to or from said image input/output device is carried  
out according to the control program thus received.

20 46. A memory medium storing a program capable of  
being read by a computer, which executes a display  
control method with means for distributing upstream bus  
means under one-to-one serial connection to one  
upstream device, to downstream bus means under one-to-  
25 one serial connection to a plurality of downstream  
devices, for connecting said means to an image  
input/output device connected to said downstream bus

means and displaying image data thereof on a display,  
comprising steps of:

detecting energization from said upstream bus  
means;

5           transferring data from the upstream device to said  
downstream bus means when the energization from said  
upstream bus means is present, and connecting said  
means to the image input/output device connected to  
said downstream bus means to effect transfer of the  
10   image data thereto or therefrom when the energization  
from said upstream bus means is absent; and  
displaying said image data on the display.